

APPENDIX A

VERSION WITH MARKINGS TO SHOW CHANGES MADE

1. (Twice Amended) A method of specifically detecting the [a strain of] *Bacillus anthracis* [containing a] surface array protein [(I)SEQ ID NO:1)] in a test sample, the method comprising:

contacting a test sample with a first antibody that [can] specifically [bind] binds to *Bacillus anthracis* surface array protein as set forth in [(I)SEQ ID NO:1)] , wherein the first antibody forms a complex with the surface array protein [if the surface array protein is] but does not form a complex with protein from other *Bacillus* present in the test sample; and

detecting the complex [whether the surface array protein is bound to the first antibody] with a labeled second antibody that binds to the complex [surface array protein], wherein [the presence of surface array protein] the detection of the complex is indicative of the presence of *Bacillus anthracis* in the test sample.

22. (Twice Amended) A kit for detecting the presence or absence of *Bacillus anthracis* in a sample, the kit comprising:

[a solid support upon which is immobilized a] a first antibody that [can] specifically [bind] binds to [a] the surface array protein set forth in [(I)SEQ ID NO:1)] of *Bacillus anthracis*] but does not bind to protein from other *Bacillus*; and

a label

[a second antibody which binds to the surface array protein].

25. (Twice Amended) The kit of claim [22] 33, wherein the first or second antibody is a recombinant polyclonal antibody.

26. (Once Amended) The kit of claim [24] 33, wherein the first or second antibody is a monoclonal antibody.

27. (Twice Amended) The kit of claim [22] 33, wherein the first or second antibody is a mixture of monoclonal and polyclonal antibody preparations.

APPENDIX B

CLAIMS PENDING WITH ENTRY OF AMENDMENT

1. (Twice Amended) A method of specifically detecting the *Bacillus anthracis* surface array protein SEQ ID NO:1 in a test sample, the method comprising:

contacting a test sample with a first antibody that specifically binds to *Bacillus anthracis* surface array protein as set forth in SEQ ID NO:1, wherein the first antibody forms a complex with the surface array protein but does not form a complex with protein from other *Bacillus* present in the test sample; and

detecting the complex with a labeled second antibody that binds to the complex, wherein the detection of the complex is indicative of the presence of *Bacillus anthracis* in the test sample.

3. The method of claim 1, wherein the *B. anthracis* strain is encapsulated.

5. (Amended) The method of claim 1, wherein the first or second antibody is a recombinantly produced antibody.

6. (Amended) The method of claim 5, wherein the first or second antibody is a recombinantly produced polyclonal antibody.

7. (Amended) The method of claim 1, wherein the first or second antibody is a monoclonal antibody.

8. The method of claim 1, wherein the test sample is collected from a site of suspected or threatened anthrax contamination.

9. The method of claim 8, wherein the test sample is collected using a cyclonic collection device.

10. (Amended) The method of claim 1, wherein the test sample is not cultured prior to contacting with the first antibody.

11. (Amended) The method of claim 1, wherein the first antibody is immobilized on a solid support.
12. The method of claim 11, wherein the solid support is a microtiter dish.
13. (Amended) The method of claim 11, wherein the first antibody is immobilized on the solid support prior to contacting the first antibody with the test sample.
14. The method of claim 1, wherein the method can detect *B. anthracis* at concentrations as low as about 10,000 cfu/ml.
15. The method of claim 14, wherein the method can detect *B. anthracis* at concentrations as low as about 5,000 cfu/ml.
16. The method of claim 15, wherein the method can detect *B. anthracis* at concentrations as low as about 1,800 cfu/ml.
19. (Amended) The method of claim 1, wherein the second antibody binds to a different epitope of the surface array protein than does the first antibody.
20. (Amended) The method of claim 17, wherein the second antibody comprises a detectable label.
21. The method of claim 20, wherein the detectable label is selected from the group consisting of a radioactive label, a fluorophore, a dye, an enzyme, and a chemiluminescent label.
22. (Twice Amended) A kit for detecting the presence or absence of *Bacillus anthracis* in a sample, the kit comprising:
a first antibody that specifically binds to the surface array protein set forth in SEQ ID NO:1 but does not bind to protein from other *Bacillus*; and

a label.

23. The kit of claim 22, wherein the solid support is a microtiter dish.

25. (Twice Amended) The kit of claim 33, wherein the first or second antibody is a recombinant polyclonal antibody.

26. (Once Amended) The kit of claim 33, wherein the first or second antibody is a monoclonal antibody.

27. (Twice Amended) The kit of claim 33, wherein the first or second antibody is a mixture of monoclonal and polyclonal antibody preparations.

28. The kit of claim 22, wherein the kit further comprises written instructions for using the kit to determine whether a test sample contains *B. anthracis*.

29. The kit according to claim 22, wherein the kit further comprises a positive control that comprises a polypeptide that comprises an antigenic determinant of a *B. anthracis* surface array protein.

33. (New) The kit of claim 22, wherein the kit further comprises a second antibody which binds the surface array protein as set forth in SEQ ID NO:1.

34. (New) The kit of claim 22, wherein the first antibody is immobilized on a solid support.